

10. (previously presented) The process according to claim 9, wherein a trialkylamine is reacted with the unsaturated epoxide.
11. (canceled)
12. (withdrawn) A fabric softening composition which comprises at least one compound according to claim 2 .
13. (withdrawn) The composition of claim 12 which additionally comprises at least one performance booster selected from the group consisting of cationic and non-ionic surfactants.
14. (previously presented) The composition of claim 8 which additionally comprises at least one performance booster selected from the group consisting of cationic and non-ionic surfactants.

Remarks

This is an international application filed under the Patent Cooperation Treaty (PCT) on February 28, 2000.

In the official action mailed April 26, 2004, the examiner rejected claims 1, 4-6, 8 and 14 under 35 U.S.C. § 103(a) for allegedly being unpatentable over EP 330,261 ('EP261). The examiner also indicated that claims 9 and 10 remain objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Concerning the rejection of record, the examiner is respectfully requested to note that the quaternized monoester amine softening compounds (esterquats) of EP '261

are one-carbon homologs of the esterquats of formula II of the present patent application (see claim 1). The formula II-esterquats differs from the prior art esterquats in having one extra methyl group.

According to the synthesis of esterquats in EP '261, epichlorohydrin is used as raw material. In this reaction, the chlorine atom of epichlorohydrin is substituted by a stearyloxy-group. It is well known that this substitution takes place according to an S_N2-mechanism.

If the synthesis of EP '261 (page 5, lines 41-51) is considered for the preparation of the esterquat-formula II, the reagent, epichlorohydrin must be replaced by 3-chloro-1,2-epoxybutane (an epichlorohydrin having a methyl group rather than a hydrogen atom at the carbon bonded to the chlorine).

Said extra methyl group in 3-chloro-1,2-epoxybutane, however, turns the chlorine from a primary to a secondary chlorine atom. Any handbook on organic chemistry (see, for instance, 'Organic Chemistry' – McMurry, page 378-380, which is attached hereto as Exhibit 1) teaches that in S_N2-reactions primary halides are much more reactive than secondary halides. Page 380 states that '*S_N2 reactions can occur only at relatively unhindered sites, and are normally useful **only with methyl halides, primary halides, and a few simple secondary halides***' (emphasis added). The secondary halide 3-chloro-1,2-epoxybutane, which would be necessary for preparing the instant esterquats, is certainly not a 'simple secondary halide', since the halide in 3-chloro-1,2-epoxybutane is considerably sterically hindered by both a methyl group and an epoxy-group, and an S_N2 reaction would therefore virtually not occur.

Hence, the formation of the esterquats of formula II is impossible when using the method of EP '261, wherein epichlorohydrin is replaced by 3-chloro-1,2-epoxybutane.

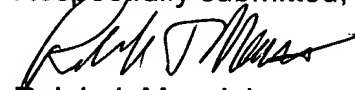
The essence of the invention of the instant patent application is not to be found in the fabric softening properties of the esterquats of claim 1, but in the fact that these esterquats are a novel class of compounds in comparison with the esterquats of EP '261. An advantage of this class of esterquats is that they can be manufactured without utilizing epichlorohydrins, an environmentally dangerous compound that is difficult to handle and dispose of.

In summary, applicants respectfully submit that they have clearly demonstrated that the esterquats of the present invention cannot be prepared by using the method of EP '261. Therefore, it was necessary to develop a completely different process as claimed in claim 9, a process is acknowledged as being novel and non-obvious by the examiner. Accordingly, since EP'261 does not disclose the claimed compounds, and the claimed compounds clearly cannot be made by the process of EP'261, the disclosure of EP'261 cannot be reasonable construed as rendering the esterquats of the claimed invention obvious.

In view of the foregoing, the subject rejection is believed to be improper; reconsideration and withdrawal thereof is respectfully requested.

Therefore, in view of the remarks herein, the present case is believed to be in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



Ralph J. Mancini
Attorney for Applicants
Registration No. 34,054

Akzo Nobel Inc.
Intellectual Property Department
7 Livingstone Avenue
Dobbs Ferry, NY 10522-3408
(914) 674-5465